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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/707,312

12/04/2003

Mark S. Cavin

Cognio99US

1311

24374 7590 01/29/2007

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EXAMINER

DAO, MINH D

ART UNIT

PAPER NUMBER

2618

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/29/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/707,312

Applicant(s)

CAVIN, MARK S.

Examiner

MINH D. DAO

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 25 is/are allowed.
- 6) ☒ Claim(s) 1-7, 13, 15, 20, 22-24 and 26 is/are rejected.
- 7) ☒ Claim(s) 8-12, 14, 16-19, 21 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-7, 13, 15, 20, 22-24, 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Pau (US 6,735,426).

Regarding claim 1, Pau teaches a radio communication device comprising:

- a. a first radio integrated circuit (IC) that performs one of radio transmission (see fig. 1; col. 3, lines 39 to col. 4, line 32);
- b. a second radio IC that performs one of radio radio reception (see fig. 1; col. 3, lines 39 to col. 4, line 32); and
- c. wherein the first radio IC generates and uses a local oscillator signal for radio transmission and/or radio reception operation, and wherein the local oscillator signal is coupled to the second radio IC for use in its radio transmission and/or radio reception operation (see fig. 1; col. 3, lines 39 to col. 4, line 32).

Regarding claim 2, Pau teaches the radio communication device of claim 1; wherein the local oscillator signal generated by the first radio IC is a radio frequency (RF) local oscillator signal (see fig. 1; col. 3, lines 39 to col. 4, line 32).

Regarding claim 3, Pau teaches that the second radio IC comprises a transmitter and/or receiver that receives and uses the RF local oscillator signal from the first radio IC for transmission and/or reception at a frequency corresponding to the frequency of the RF local oscillator signal (see fig. 1; col. 3, lines 39 to col. 4, line 32).

Regarding claim 4, Pau teaches the radio communication device of claim 3, wherein the first and second radio ICs each use the RF local oscillator signal for simultaneously transmitting signals at the same radio frequency corresponding to the frequency of the RF local oscillator signal or for simultaneously receiving signals at the same radio frequency corresponding to the frequency of the RF local oscillator signal (see fig. 1; col. 3, lines 39 to col. 4, line 32).

Regarding claim 5, Pau teaches the radio communication device of claim 4, wherein the first and second radio ICs each comprises a plurality of transmitters, and wherein the first radio IC supplies the RF local oscillator signal to each of its plurality of transmitters and the second radio IC supplies the RF local oscillator signal coupled from the first radio IC to each of its plurality of transmitters so that the plurality of transmitters of the first radio IC and the plurality of transmitters of the second radio IC simultaneously transmit a combined plurality of signals at a radio frequency corresponding to the frequency of the RF local oscillator signal (see fig. 1; col. 3, lines 39 to col. 4, line 32; also see col. 4, line 59 to col. 5, line 14).

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Regarding claim 6, Pau teaches the radio communication device of claim 4, wherein the first and second radio ICs each comprises a plurality of receivers, and wherein the first radio IC supplies the RF local oscillator signal to each of its plurality of receivers and the second radio IC supplies the RF local oscillator coupled from the first radio IC to each of its plurality of receivers so that the plurality of receivers of the first radio IC and the plurality of receivers of the second radio IC simultaneously receive a combined plurality of signals at a radio frequency corresponding to the frequency of the RF local oscillator signal (see fig. 1; col. 3, lines 39 to col. 4, line 32; also see col. 4, line 59 to col. 5, line 14).

Regarding claim 7, Pau teaches the radio communication device of claim 1, wherein the first and second radio ICs each comprises a port circuit, the port circuit in the first radio IC couples the local oscillator signal to the port circuit of the second radio IC, and the port circuit in the second radio IC couples the local oscillator signal from the first radio IC for use by its radio transmitter (see fig. 1, item 42).

Regarding claim 13, the claim includes the limitations as that of claim 1, and therefore is interpreted and rejected for the same reason set forth in the rejection of claim 1.

Regarding claim 15, Pau teaches the radio device of claim 13, and further comprising at least one frequency divider circuit that produces an intermediate frequency oscillator signal from the local oscillator signal (see fig. 6, items 1802, 1812, 1814).

Regarding claim 20, Pau teaches the radio device of claim 15, and further comprising a phase lock loop system and wherein the at least one frequency divider circuit is connected outside the phase lock loop system (see fig. 6).

Regarding claim 22, Pau teaches the radio device of claim 13, wherein the radio transmitter and/or radio receiver, local oscillator signal source and port circuit are implemented on a single integrated circuit (see fig. 1).

Regarding claims 23,24 the claims include the limitations as that of claim 13, and therefore is interpreted and rejected for the same reason set forth in the rejection of claim 13.

Regarding claim 26, the rejection of claim 1 is herein incorporated. In addition, Pau also teaches phase and frequency co-herency between a first and second IC (see figs. 1 and 6, items 42s).

Allowable Subject Matter

2. Claim 25 is allowed.

3. Claims 8-12, 14, 16-19, 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MINH D. DAO whose telephone number is 571-272-7851. The examiner can normally be reached on 8:30 AM - 5:00 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MATTHEW ANDERSON can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Minh Dao 
AU 2618
December 26, 2006



Matthew Anderson
Supervisor AU 2618